

CLAIMS

1. A method for modifying the data in a card transaction system including a smart card or the like and a reader capable of reading said card when it is in a determined position in relation to said reader, said card including a non-volatile, erasable and rewritable memory comprising at least one location to record a data value relating to the transactions carried out by said card, each transaction resulting in the modification of said data value, the latter being a monotonic function in time,
said method being characterised in that, at each transaction, an operation for writing said data value performs the writing of the new data value (Y) in a first location (B) of two predefined locations forming a counter in said memory, said writing operation performing the erasing of the old data value (X) recorded in the second location (A) of said two locations such that, at the end of the correctly performed writing operation, said first location contains said new data value whilst said second location contains the value zero.
2. The method according to Claim 1, wherein the data value recorded in one of said two locations (A or B) is incremented at each writing operation.
3. The method according to Claim 2, wherein the transaction is not validated due to the fact that said writing operation has not been performed correctly as a result of an abrupt withdrawal of said card in the course of the transaction, neither of the two tiers of said counter having recorded a value equal to zero.
4. The method according to Claim 2, further including a repair of said counter by a rewriting operation consisting in rewriting said new value (Y) in said first location (B) and erasing said old value (X) from said second location (A) when the abrupt withdrawal has taken place during the writing phase of said new value.

5. The method according to Claim 2, further including, when said first location (B) contains an incorrect value (Y') between said old data value (X) and said new data value (Y), a repair of said counter by a rewriting operation consisting in rewriting said incorrect value in said first location and erasing said old value from said second location, followed by a writing operation consisting in writing said new value in said second location (A) and erasing said incorrect value from said first location.
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6. The method according to Claim 2, further including, when said first location (B) contains an incorrect data value (Y') which is less than said old value (X), a repair of said counter by a rewriting operation consisting in rewriting said old data value (X) in said second location (A) and erasing said incorrect data value, followed by a writing operation, consisting in writing said new data value (Y) in said first location and erasing said old data value from said second location.
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7. The method according to Claim 2, further including a repair of said counter by a rewriting operation consisting in rewriting said new data value (Y) in said first location (B) and erasing said old data value (X) from said second location (A) when the abrupt withdrawal has taken place between the writing phase of said new data value and the erasing phase of said old data value.
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8. The method according to Claim 2, further including, when the abrupt withdrawal has taken place during the erasing phase of said old data value (X) and an incorrect data value (X') is recorded in said second location (A), a repair of said counter by a rewriting operation consisting in rewriting said new data value (Y) in said first location (B) and erasing said incorrect data value from said second location.
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9. A card transaction system including a smart card or the like and a reader capable of reading said card when it is in a determined position in relation to the reader, said card including a non-volatile, erasable and rewritable memory comprising at
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least one location to record a data value relating to the transactions carried out by said card, each transaction causing the modification of said data value, the latter being a monotonic function in time ;

- 5** said system being characterised in that said memory includes a predefined first location and a predefined second location, forming a counter, each transaction resulting in a writing instruction performing the writing of a new data value (Y) in said first location (B) and the erasing of the old data value (X) from said second location (A), such that, at the end of the writing operation, said first location
- 10** contains said new data value whilst said second location contains the value zero.

10. The system according to Claim 9, wherein said smart card is a contactless card.